

ABSTRACT.

There are provided a phase change-type memory element, which can reduce a reset pulse current value
5 necessary for returning the phase state from an ON state to an OFF state, can improve integration density, is not restricted by the process temperature at the time of the production thereof, and can be simply produced, and a process for producing the same. The phase change-type
10 memory element comprises: two or more electrodes provided opposite to each other through an insulating layer; an exposed surface on which at least a part of the insulating layer and at least a part of each of the electrodes are exposed; and a phase change recording
15 material layer provided, on the exposed surface, in contact with the at least two electrodes. The production process of the phase change-type memory element comprises the steps of: providing two or more electrodes opposite to each other through an insulating material;
20 forming an exposed surface on which at least a part of the insulating material and at least a part of each of the electrodes are exposed; and forming a phase change recording material layer on the exposed surface so as to be in contact with at least two of the electrodes.